

REMARKS

Status of the Application

This amendment is filed in response to the Office Action dated December 13, 2007. Claims 1-30 were pending. The Office Action finally rejected claims 1-30. No claims are amended by way of this response. Thus, claims 1-30 remain pending and at issue.

Rejection under 35 U.S.C. §102

Claims 11, 13-14, 18-21, and 26-30 were rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent Application Pub. No. 2004/0010785 to Chauvel et al. (hereinafter “Chauvel-1”). Applicants respectfully traverse this rejection.

Claim 11

Claim 11 is generally directed to a method that recites “receiving a plurality of non-native instructions; executing the non-native instructions for an initial number of times using an interpreter; and compiling the non-native instructions into object code after executing the received non-native instructions for said initial number of times using the interpreter.”

Chauvel-1 does not disclose this combination of elements. Instead, Chauvel-1 describes counting the number of times operations are executed within an application to determine an application profile for comparison with a virtual machine profile. Chauvel-1 also mentions that its profiling techniques may be “adapted to take into account an interpreter-based execution and a JIT [just-in-time compiler] one.” Chauvel-1, par. [0063]. Chauvel-1, however, does not disclose or suggest executing non-native instructions for an initial number of times using an interpreter and subsequently compiling the non-native instructions as recited in claim 11.

In order for a reference to be anticipatory, “[t]he identical invention must be shown in as complete detail as contained ... in the claim.” MPEP §2131, citing *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236 (Fed. Cir. 1989). The general statement in Chauvel-1 that its profiling

techniques may be “adapted to take into account an interpreter-based execution and a JIT one.” is not a disclosure of “compiling the non-native instructions into object code after executing the received non-native instructions for said initial number of times using the interpreter.” At least for these reasons, Chauvel-1 does not disclose or suggest each and every element of claim 11 and thus, Chauvel-1 does not anticipate claim 11.

Claims 13-14, 18-21 and 26-30

With regard to claims 13-14, which depend from claim 11, Applicants respectfully submit that Chauvel-1 does not anticipate claims 13-14 at least for the same reasons as claim 11.

With regard to claims 18-21 and 26-30, Applicants respectfully submit that Chauvel-1 does not anticipate claims 18-21 and 26-30 at least for reasons similar to those discussed above with respect to claim 11.

Rejections under 35 U.S.C. §103

Claims 1-10, 12, 15-17, and 22-25 were rejected under 35 U.S.C. §103(a) as being unpatentable over Chauvel-1 in view of U.S. Patent No. 7,146,613 to Chauvel et al. (hereinafter “Chauvel-2”). Applicants respectfully traverse this rejection.

“To establish prima facie obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art.” *MPEP §2143.03, citing In re Royka*, 180 USPQ 580 (CCPA 1974). As will be explained further with reference to specific claims, the Office Action failed to establish that the alleged combination of Chauvel-1 and Chauvel-2 teaches, discloses, or suggests each and every element of each of claims 1-10, 12, 15-17 and 22-25.

Claim 1

Claim 1 is generally directed to a method that includes “compiling [a] plurality of non-native instructions [in a selected one of a source form and an intermediate form] to generate object code for the non-native instructions, wherein compiling the plurality of non-native

instructions (e.g., source or intermediate form) includes replacing an object code segment from the generated object code with an alternative object code segment if the alternative object code segment improves at least a selected one of a power level required and an amount of energy required to execute the generated object code in a target execution environment.” At least this element is not disclosed or suggested by the alleged combination of Chauvel-1 and Chauvel-2.

The Office Action admits that Chauvel-1 does not disclose this element, but then alleges that such element is disclosed by Chauvel-2. But Chauvel-2 describes byte code substitution, and byte code is not object code as recited in claim 1. Rather, byte code in the context of claim 1 is an intermediate form that is subsequently compiled into object code. For example, Chauvel-2 describes a modified Java® Virtual Machine (JVM) at a computer that receives machine-neutral byte codes. The modified JVM then inspects the received byte codes to improve byte-code execution by “sequence recognition and proprietary JAVA-DSP byte-code substitution in the classes” (col. 5, lines 31-32, emphasis added). Chauvel-2 further describes that the byte code substitution reduces a number of byte code instructions and, thus, increases execution performance. The described JVM then compiles the reduced byte codes into machine-specific object code that may then be executed by the computer. In other words, Chauvel-2 describes improving the execution of an application by replacing portions of a received byte code sequence with proprietary byte code during the JVM’s interpretive process that occurs before the byte code is compiled to machine-specific object code.

At least for these reasons, the alleged combination of Chauvel-1 and Chauvel-2 does not render claim 1 unpatentable.

Claims 2-10, 12, 15-17, 22-25

With regard to claims 2-10, which depend from claim 1, Applicants respectfully submit that the alleged combination of Chauvel-1 and Chauvel-2 does not render claims 2-10 unpatentable at least for the same reasons as claim 1.

With regard to claims 15-17 and 22-25, Applicants respectfully submit that the alleged combination of Chauvel-1 and Chauvel-2 does not render claims 15-17 and 22-25 unpatentable at least for reasons similar to those discussed above with respect to claim 1.

Claim 12

Claim 12 depends from claim 11 and thus recites “receiving a plurality of non-native instructions; executing the non-native instructions for an initial number of times using an interpreter; and compiling the non-native instructions into object code after executing the received non-native instructions for said initial number of times using the interpreter.”

The alleged combination of Chauvel-1 and Chauvel-2 does not disclose or suggest this element. At least for this reason, claim 12 is not rendered unpatentable over Chauvel-1 and Chauvel-2.

Conclusion

In view of the above, Applicants submit that the pending application is in condition for allowance and an early action so indicating is respectfully requested.

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